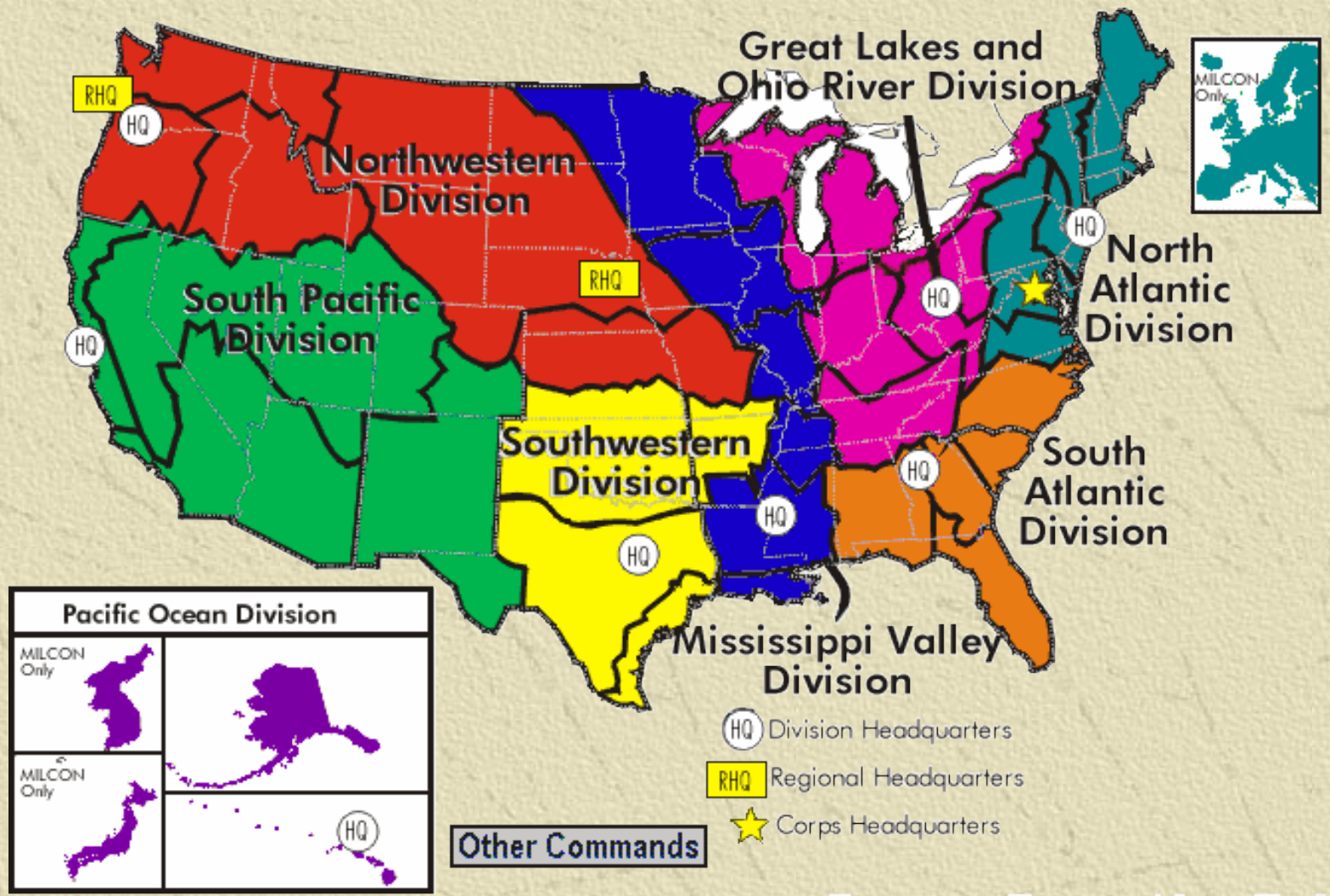
Arizona-Nevada Area Office

OVERVIEW OF USACE CIVIL WORKS PROGRAM

USACE DIVISIONS



LOS ANGELES DISTRICT

AZ-NV Civil Works Programs Overview

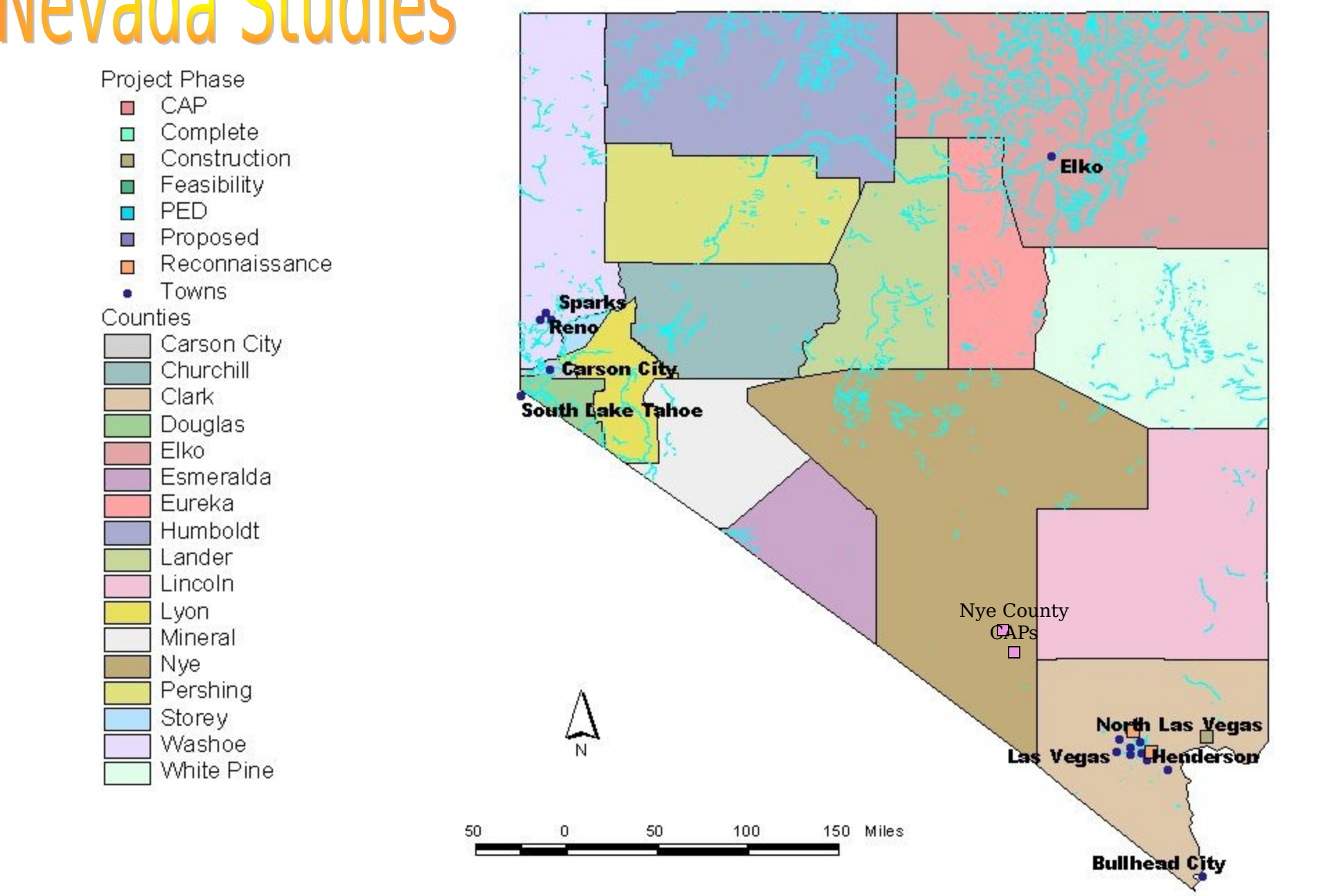
- General Investigation (GI)
- General Construction (CG)
- Preliminary Engineering and Design (PED)
- Continuing Authorities Program (CAP)
- Tribal Nations Program
- Planning Assistance to States & Tribes (PAS)
- Rehabilitation of Abandoned Mines (RAMS)
- Engineering Research & Development Center (RSM, SMART, EMRRP & TOWNS)

Civil Works Program

Construction General (CG) and General Investigation (GI)

- Planning Projects & Studies

Nevada Studies



Arizona Project List

(General Investigations & Construction-General)

Planning Phase

- Rio Salado, Phoenix, Oeste
- Colonias US-Mexico
- Gila River, Santa Cruz River
- Navajo Nation, AZ, NM, UT
- Little Colorado River Watershed
- Tanque Verde, Pima County
- Va Shly' ay Akimel, Salt River
- Tres Rios del Norte, Pima County
- Agua Fria River
- El Rio Antiguo, Rillito River
- Rillito River, Pima County
- Grant to Fort Lowell, Santa Cruz River, El Rio Medio
- Paseo de las Iglesias, Santa Cruz River

Design Phase

- Rio de Flag, Flagstaff
- Tres Rios

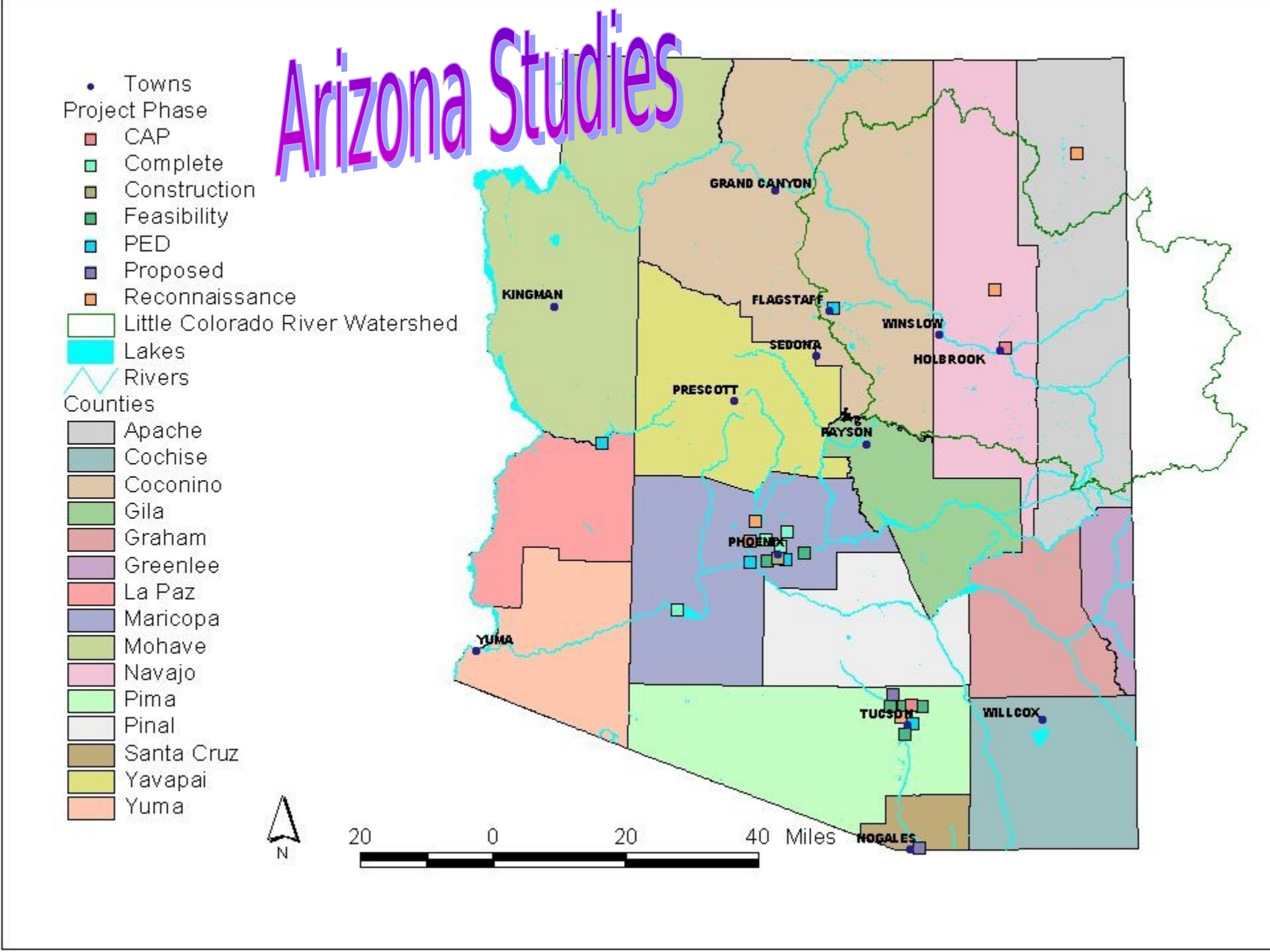
Construction Phase

- Rio Salado Phoenix
- Rio Salado Tempe
- Nogales Wash

Under Consideration

- Rio Salado, Phoenix, Este
- Gila River, NE Phoenix Drainage
- Ft. McDowell Indian Community, Verde River
- Canada del Oro Wash, Pima County
- Pinal Creek, Miami

Arizona Studies



1 Rio Salado, Phoenix

1a, b Rio Salado, Tempe

2 Tres Rios

3 Rio Salado Oeste

4 Rio Salado Este

5 Va Shly' Ay Akimel

6a GRIC Blackwater

6 GRIC Other

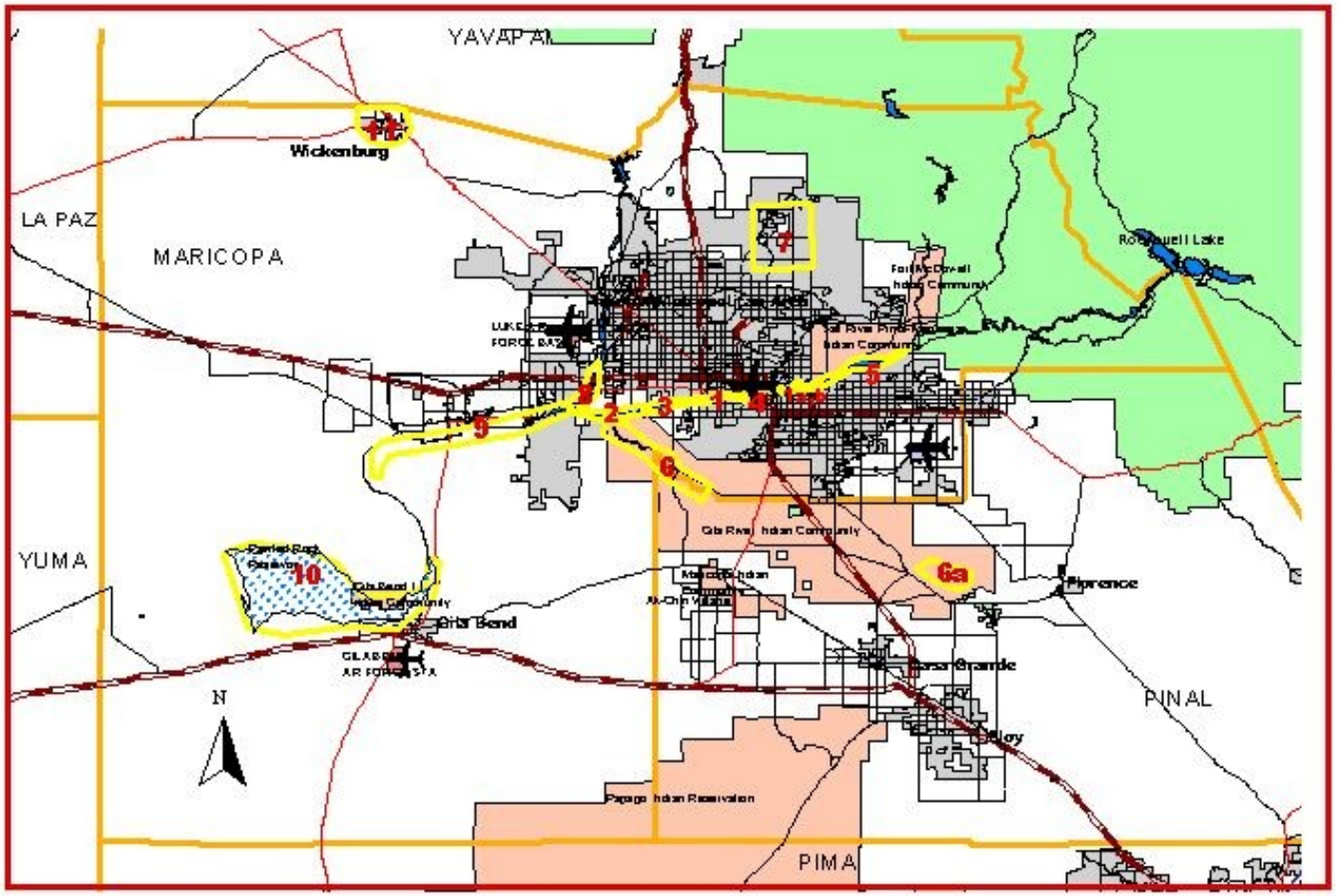
7 Northeast Phoenix

8 Agua Fria 1135

9 El Rio (Potential)

10 Painted Rock (Potential)

11 Wickenburg (Potential)

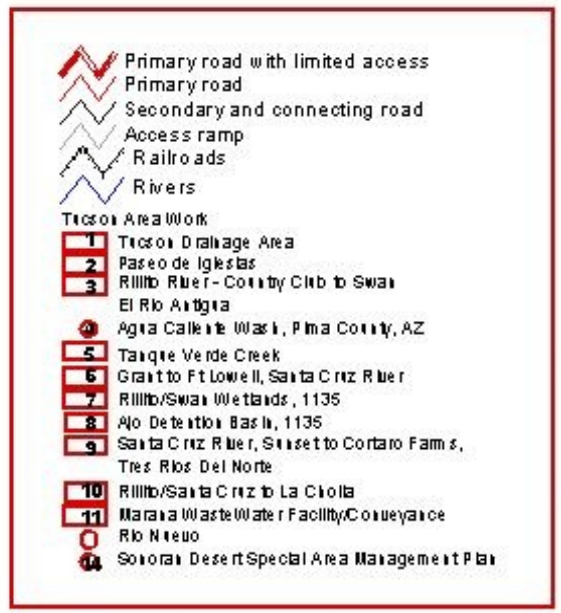


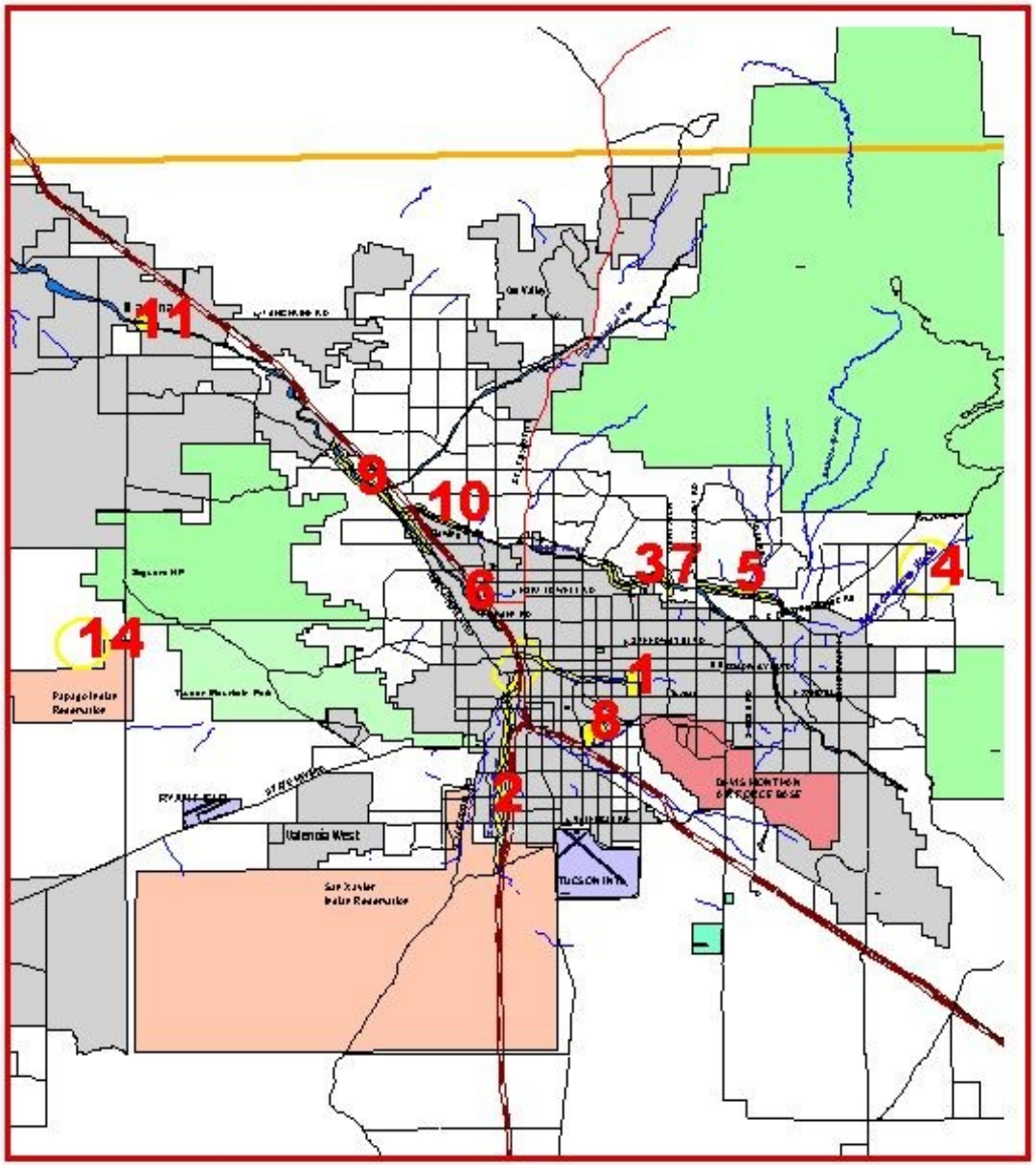
Existing and Potential Studies
Maricopa County, Arizona

20 0 20 40 Miles

Maricopa County, Arizona

TUCSON/PIMA COUNTY
EXISTING & POTENTIAL STUDIES


Primary road with limited access
Primary road
Secondary and connecting road
Access ramp
Railroads
Rivers
Tucson Area Work
1 Tucson Drainage Area
2 Paseo de Iglesias
3 Rillito River - Country Club to Swan
El Rio Antigua
4 Agua Caliente Wash, Pima County, AZ
5 Tanque Verde Creek
6 Grant to Ft Lowell, Santa Cruz River
7 Rillito/Swan Wetlands, 1135
8 Ajo Detention Basin, 1135
9 Santa Cruz River, Sunset to Cortaro Farms,
Tres Rios Del Norte
10 Rillito/Santa Cruz to La Cholla
11 Marana WasteWater Facility/Conveyance
Rio Nuevo
14 Sonoran Desert Special Area Management Plan



Civil Works Program

- WRDA 1999
  - Tucson Drainage Area
  - Rio Salado
- WRDA 2000
  - Rio de Flag
  - Tres Rios

- **Total Construction**
  - $29,900,000
  - $88,048,000
  - $24,072,000
  - $99,320,000

Civil Works Program

GI-Feasibility	Study Cost	FY03 Conference Report
Paseo de las Iglesias	$3.6 mil	$300,000
Tres Rios del Norte	$5.8 mil	$400,000
Va Shly ‘ay Akimel	$4.7 mil	$400,000
Rio Salado Oeste	$3.9 mil	$300,000
El Rio Antiguo	$3.2 mil	$410,000
NE Phoenix	2.4 mil	$143,000

Civil Works Program

Design (PED)

Civil Works Program

Continuing Authorities Program (CAP)

Continuing Authorities Program (CAP)

Section:

- 14: Emergency Stream Bank & Shoreline Protection
- 205: Small Flood Control Projects
- 206: Aquatic Ecosystems Restoration
- 1135: Project Modifications for Improvement of the Environment
- 204: Beneficial Uses of Dredged Material

Section:

- 208: Snagging & Clearing for Flood Control
- 107: Small Navigation Improvements
- 103: Hurricane and Storm Damage Reduction (Beach Erosion)
- 111: Mitigation of Shore Damage Attributable to Navigation Works

Civil Works Program

- CAP
  - Agua Fria 1135
  - Holbrook Levees Ecosystem Restoration 1135
  - Quigley Wildlife Area 1135
  - Rillito (Swan Wetlands) 1135
  - El Vado Wash Aquatic Riparian Restoration 206
  - Sedona FPMS
  - Apache Junction FPMS
  - Mohave County FPMS
  - Arizona Flood Warning 205

Civil Works Program

Tribal Nations Program

Federally Recognized Tribes in the Continental U

Tribal Facts

- 329 of the 556 tribes are in the Continental U.S.
  - Northwestern Division: 64 of 329 tribes
  - Southwestern Division: 7 of 329 tribes
  - South Pacific Division: 170 of 329 tribes

Federally Recognized Tribes in South Pacific Division

- Sacramento District: 56
- San Francisco District: 27
- Los Angeles District: 59
- Albuquerque District: 28

Established USACE Relationships with AZ Tribes

Navajo Nation

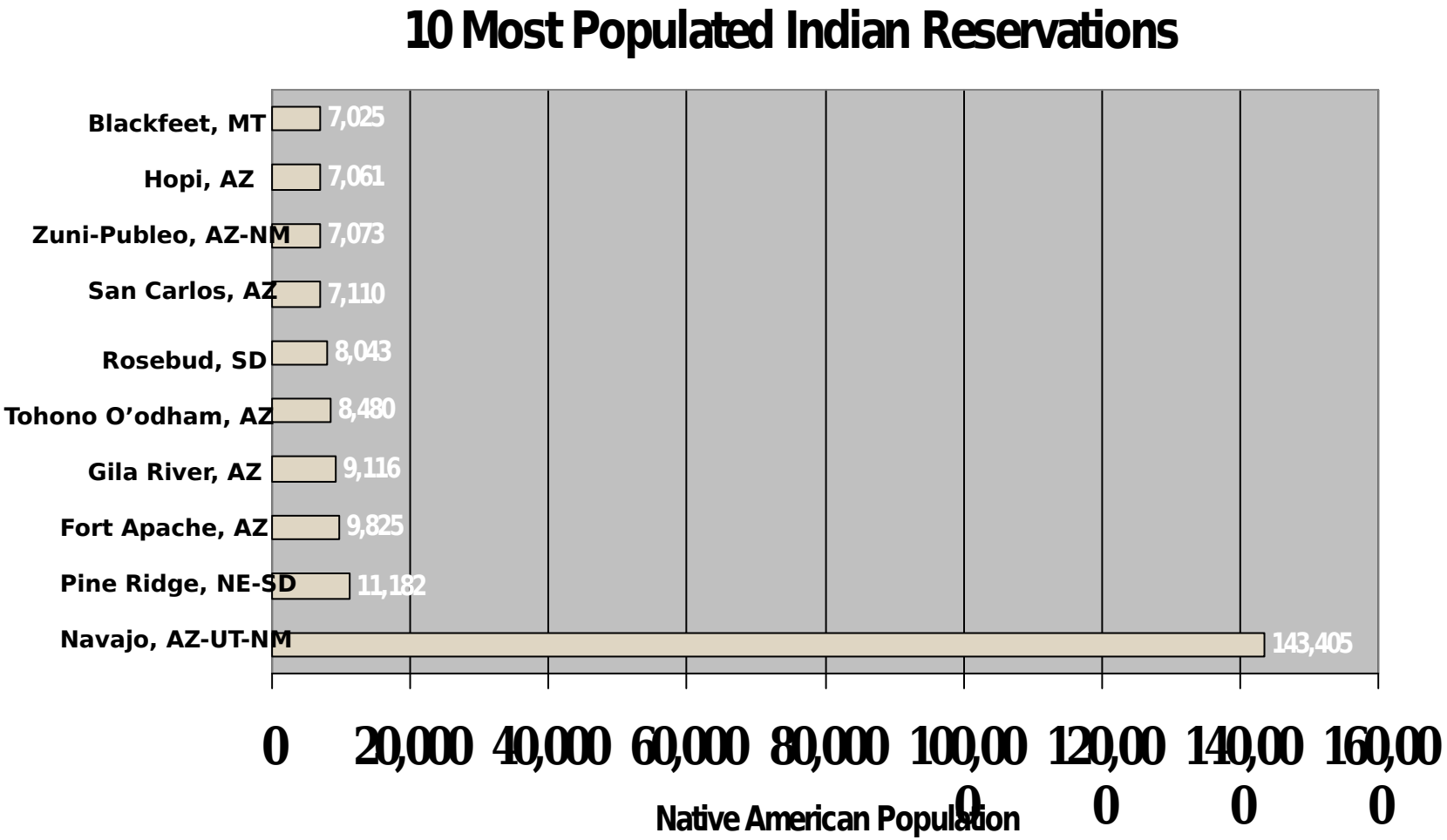
Hopi Tribe

Zuni Tribe

Gila River Indian Community

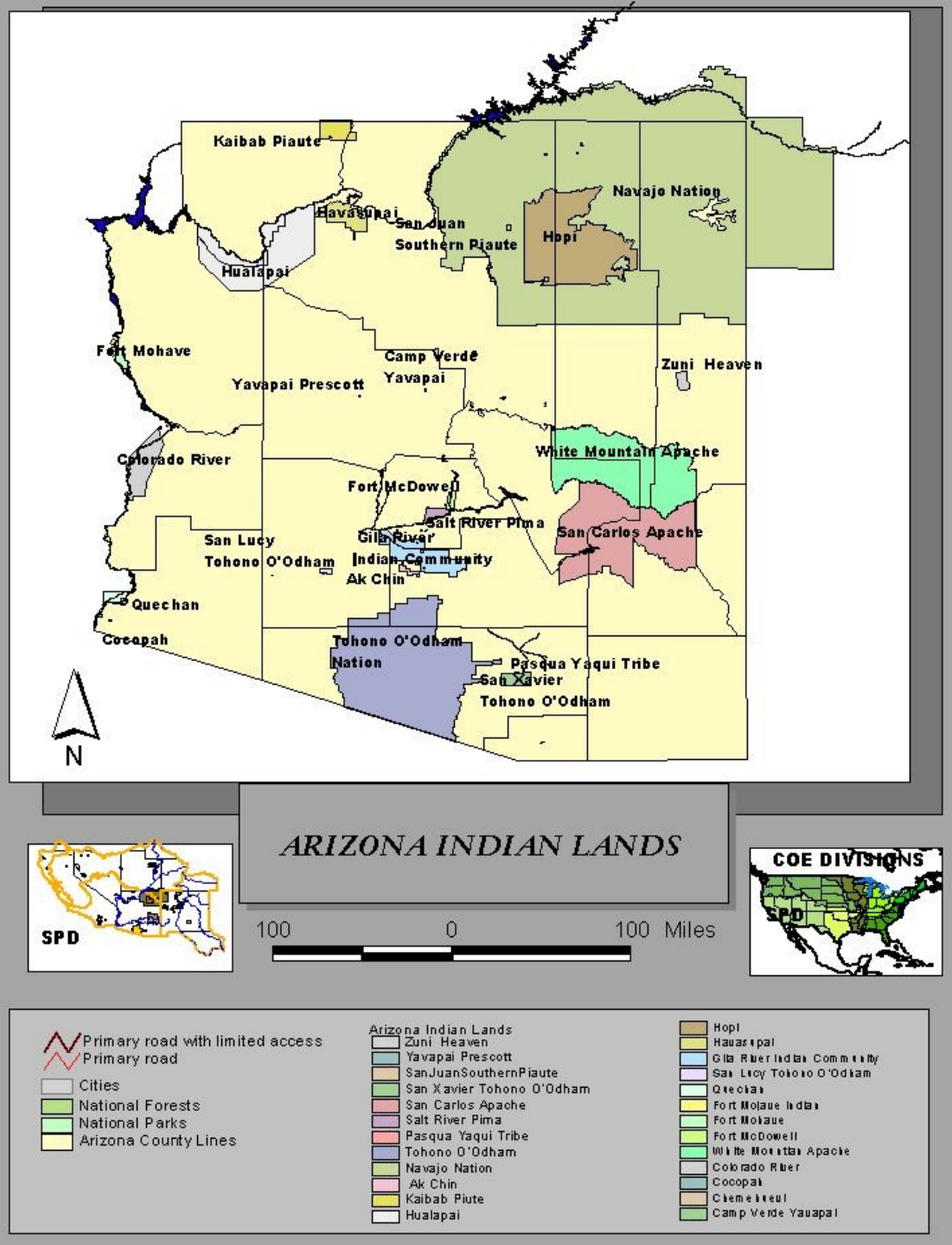
Salt River Pima-Maricopa Indian Community

Tribal Facts: Most Populated Indian



AZ-NV Area Office:

Work for Native Americans



Authorizations

- WRDA ‘99: Section 520 - Navajo Nation
  - Provide Technical planning and design assistance for watershed management, restoration, and development on the Navajo Indian Reservation: Arizona, New Mexico and Utah.
- WRDA 2000: Section 203 - Tribal Partnership Program
  - In cooperation with Indian tribes and the heads of other agencies, may study and determine the feasibility of carrying out water resources development projects
    - Projects for flood damage reduction, environmental restoration and protection, and preservation of cultural and natural resources

Civil Works Program

Planning Assistance to States (PAS)

Planning Assistance to States (PAS)

- Two AST projects:
  - Camp Verde
  - Wickenburg

Civil Works Program

Rehabilitation of Abandoned Mine Sites (RAMS)

RAMS Projects

- AST Projects
  - Navajo Nation RAMS
  - State of Nevada RAMS

Civil Works Program

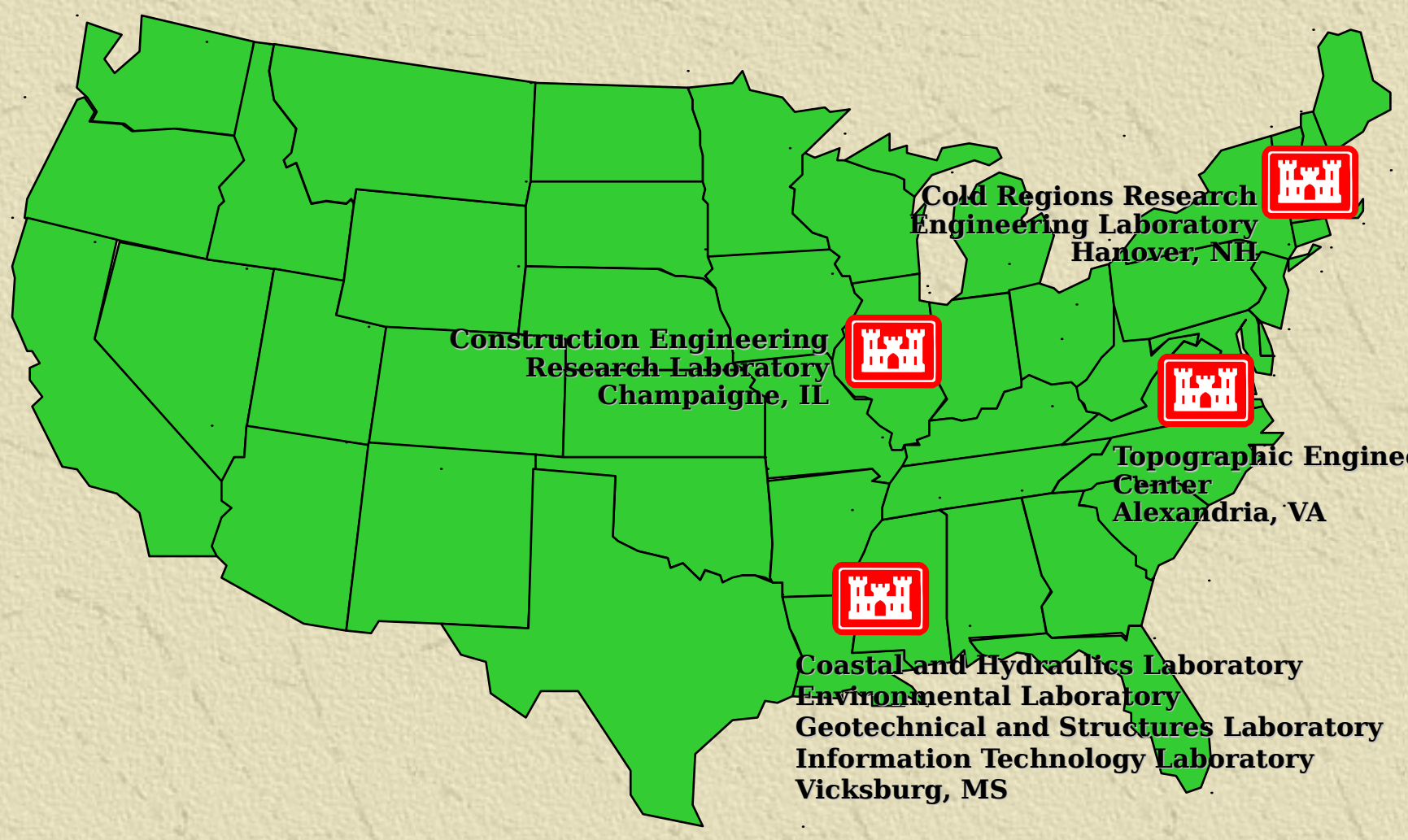
Engineering Research & Development Center (ERDC)

What is ERDC?

- Engineer Research and Development Center
  - 7 Laboratories
    - 2500 Personnel
      - 533 MS Degree
      - 266 PhD Degrees
  - $1.3B facilities and equipment
  - $530M annual budget

For more info: www.erdc.usace.army.mil/

Engineer Research & Development Center



ERDC's Role

- Problem solvers:
  - In depth, interdisciplinary, technical expertise, and institutional knowledge
- Technology advisors:
  - State-of-the-art science
  - Help customers make the right technology choices
- Technology developers
  - If the technology does not exist, we can develop it or modify existing technology
- Business development partners
  - Provide competitive advantage via technology and access to ERDC personnel and its unique partnering authorities

Groundwater / Surface Water Interactions

Remote Sensing/ In Situ Monitoring

Environmental Microbiology

Ecological Modeling

Analytical Chemistry

Environmental Impact/Risk Assessment

Environmental Engineering

Plant Physiology and Ecology

Hydraulic / Water Quality Modeling

GIS Technology

Geotechnical Engineering